

ON TWO INSTANCES OF COLOUR VARIATION IN  
BUTTERFLIES.

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The two butterflies which I venture to bring before the Society's notice this evening illustrate the remarkable degree of variation to which the colour and markings of the lepidoptera are liable, even in those species which are commonly regarded as the most constant. The first of these is a specimen of what I believe to be the well-known *Pyrameis cardui* or "painted-lady," a species which, with the exception of the valley of the Amazons and certain parts of South America, is found throughout the world. Contrary to the general rule of wide-ranging and much diffused species, *P. cardui* is usually very constant in its larger markings, and, therefore, the singular aberration now described is of some interest. The specimen was captured some years ago by Mr. G. Masters at Bombala, New South Wales, and is remarkable for the absence of certain wing-markings and other characters which may be summed up as follows:—The ground colour is of the usual salmon-red, inclining to orange-ochreous, varied with black markings, but the transverse discal markings which are always present on the forewing in typical *P. cardui*, between the median vein and the hind-margin, are entirely wanting; the hind-marginal band is broader towards the inner angle, the white spots on the apical portion of the wing being disposed as in the ordinary form; the hindwing has the costal and hind-margins rather broadly blackish, and the disc, which is of the usual salmon-red colour, without markings; parallel to the hind-margin is a row of moderately large white spots, situated between the veins, of which the one nearest the inner angle is ornamented with a few blue scales; the fringe of both wings (as in the typical form) is alternately black and white. Beneath the forewing corresponds with the upperside in the absence of the discal markings; whitish externally suffused with yellow-ochreous, a conspicuous white marking at the end of the discoidal cell, bordered internally and externally by a bold black

spot; two small spots near the apex and the hind-marginal border yellow-ochreous. Hindwing whitish, suffused with yellow-ochreous near the costal margin, with the base and two transverse spots, one on the cell and one beyond it, dark brown; near the hind-margin are two white-centred spots; hind-margin broadly bordered with yellow-ochreous.

At the time this specimen was captured Mr. Masters saw other, and, as he believes, similar butterflies, but as he was without a net he was unable to secure them. This *Bombala* example—for which I would suggest the varietal name *P. suffusa*—bears a remarkable resemblance in the markings of the upperside to a variety bred by Mr. J. A. Clark from a larva found on the banks of the River Lea, near London, which is figured in the 'Entomologist' for April, 1880. Like the specimen just described, this variety has the ordinary hind-marginal series of spots represented by small white dots. Now, it is well-known that the dominant Australian form of *P. cardui* has the three lower spots of this series centred with blue scales as pointed out by Prof. McCoy, who on this account suggested for it the name of *P. Kershawi* to distinguish it from the typical form in which these spots are black, but I believe it is not generally known that these blue spots are occasionally much obscured in Australian specimens, and that cases have occurred in which European examples have these spots blue-centred. Such a specimen from the New Forest was exhibited at the meeting of the Entomological Society in October, 1884, by Mr. Jenner Weir, who called attention to its similarity to the Australian form *P. Kershawi*.\* I myself found a second specimen which possessed these blue-centred markings on the sand dunes near the "gates" of the Rhine, at Katwijk, in Holland, during the autumn of 1883. If these specimens had been caught in this country they would undoubtedly have been regarded as *P. Kershawi*, and passed without comment. In view of these facts, I think the conclusion is that no constant difference obtains between the Australian and

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\*Cf. Proc. Ent. Soc. Lond., 1884, p. xxvii.

European forms of this insect, and that the Australian form—for which it may be convenient to retain the designation *P. Kershawi* as a varietal name—must be regarded as a local form, or at most as a geographical race, using the terms in the sense defined by Mr. Wallace.



The second instance of variation is the case of a specimen of *Papilio erectheus*, a butterfly peculiar to the Australian sub-region, which was found by the late Mr. A. W. Scott, at Ash Island, in the Hunter River. In this specimen the first four of the brick red spots on the hindwing are enlarged to more than four times their usual size, thus giving the insect a very singular appearance. The fifth spot is about twice and the sixth nearly three times the usual size; both these latter spots have the internal patch of blue scales, but they are entirely absent from the other portions of the wing. The accompanying illustration shows, clearly enough, the size and position of these brick-red spots; in colour the specimen does not vary from the typical form.